

Title (en)

Adjustable speed up circuit for TTL-type gates.

Title (de)

Einstellbare Beschleunigungsschaltung für Gatter des TTL-Typs.

Title (fr)

Circuit d'accélération ajustable pour portes du type TTL.

Publication

**EP 0191165 A1 19860820 (EN)**

Application

**EP 85115357 A 19851204**

Priority

US 69258185 A 19850115

Abstract (en)

The specification discloses a transition speed up circuit including an input transistor (14) for receiving a variable input voltage (VIN). An output transistor (16) is connected to the input transistor (14) to receive turn on current. A first diode (32) is connected at its cathode to the collector of the input transistor (14). A resistor (46) is connected between the anode of diode (32) and the output terminal (18). A speed up transistor (42) is connected at its emitter to the collector of input transistor (14) to supply speed up current through input transistor (14) to output transistor (16). A second diode (44) is connected between the base of speed up transistor (42) and the junction of first diode (32) and resistor (46). The speed up current terminates when the voltage at the output terminal (18) falls to a level determined by the value of resistor (46).

IPC 1-7

**H03K 19/013**; **H03K 19/088**

IPC 8 full level

**H03K 17/04** (2006.01); **H03K 19/013** (2006.01); **H03K 19/088** (2006.01)

CPC (source: EP)

**H03K 19/0136** (2013.01); **H03K 19/088** (2013.01)

Citation (search report)

- [A] US 4180750 A 19791225 - ITO HIDEO [JP], et al
- [A] EP 0032043 A1 19810715 - FUJITSU LTD [JP]
- [A] US 4255670 A 19810310 - GRIFFITH PAUL J
- [A] PATENT ABSTRACTS OF JAPAN, vol. 4, no. 11 (E-168), 26th January 1980, page 131 E 168; & JP - A - 54 152 955 (HITACHI SEISAKUSHO K.K.) 12-01-1979

Cited by

EP0302671A3; EP0317890A3; EP0614280A1; US5495099A; DE3726005A1; DE3726005C2; KR101248742B1; EP3205637A1; DE102016102307A1

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